

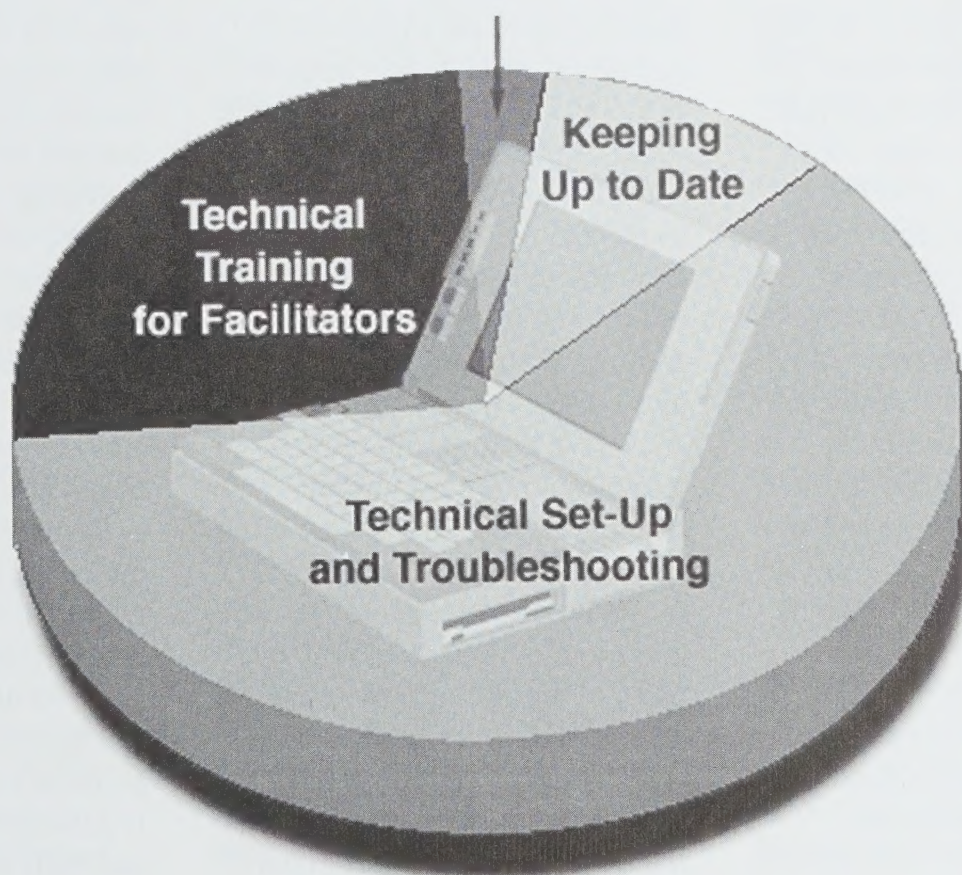
COMMUNICATING TOGETHER

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Developing Communicative Competence
and Functional Communication Strategies

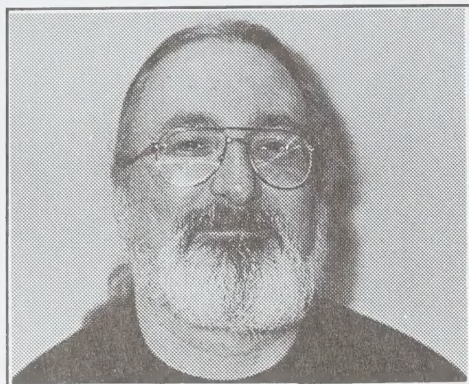


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ROBERT HAAF



Robert Haaf

Let me take this opportunity to welcome you all to Comtog's first "technology issue" in quite awhile. In fact, while my fellow editors and writers have often discussed AAC technology and its impact on many different aspects of the field, it's been some time since there has been even a regular technology column in the magazine. (Although the amount of technology-related discussion in this issue will, I'm sure, more than make up for it with some of you!) For those of you who may have missed the regular technology discussions of past issues, blame it on my having to focus on developing and using technology, as opposed to writing about it.

When we planned this issue at our editorial meeting last spring, we engaged in some lively discussions on a number of the issues that you will come across in these articles. It was decided that I would try to write a feature article on some of the points we

discussed, and that the other associate editors would respond to the editorial with their own thoughts and experiences. You can read my thoughts on the subject in the (newly renamed) *Getting Technical* column. As we anticipated, everyone brings their own perspectives to the topic of technology in AAC, and the result is, I feel, a well-balanced approach to what everyone agrees is a complex and challenging topic.

In their joint article, Tracy Shepherd and Brent Duncan address some of the clinical issues in AAC technology that they face every day. They talk about some of the expectations and myths surrounding technology. They expand on the idea that AAC clinicians' roles have been changing dramatically in recent years, and talk about how this is affecting the balance between operational and functional communication training as well as the opportunity for developing collaborative relationships with clients and families. Shirley McNaughton's article on the often uneasy marriage between AAC technology and graphic systems helps to highlight the way technology decisions can overshadow other essential considerations in AAC system development. Shirley points out that an increasing technological focus can put many important language-based processes, including graphic symbol selection, at risk. In his article, Geb Verberg proposes that providing clients and families

with independent sources of information concerning disability, rehabilitation and assistive technology would result in more informed consumers entering the clinical process, and therefore maximize the opportunity for a truly collaborative (and equal) relationship. Geb nicely outlines the role that currently available communication technologies could come to play in providing such information directly to clients and families. Nola Millin discusses her own experiences with AAC technology, both the positive and negative. Last but not least, Paul Marshall worries about the toll that some of these role changes may be taking on the satisfaction levels of AAC professionals, and reminds us that providing specialized technology to AAC users really shouldn't be as difficult as it (sometimes) is.

In reviewing and thinking about all of the issues raised by my fellow editors and writers, I am somewhat saddened that the negative trends I see are so well confirmed and elaborated on by my co-authors. At the same time, though, it's heartening that no one is losing sight of the fact that the latest technology, well applied, can be the essential tool that we all expect it to be. A case in point is a theme that underlies both Geb and Nola's articles. The growing importance of the Internet as a communication medium that can be very well suited to individuals with disabilities, and how it will likely come to play a significant

role in education and clinical support in many fields, including AAC. While the overall focus of the articles in this issue is on decidedly different aspects of technology, this is also an area that I've now spent some time immersed in, and feel that it would make an excellent follow-up to the present issue. So, think of Geb and Nola's comments as precursors to discussions to come in 1998, and look forward to more in-depth discussions of this exciting and timely topic sometime in the coming year.

I found one particular statement in Paul's article to be very telling. He reminds us that it isn't just individuals with disabilities who have grown dependent on technology, and that many of the technology-related issues that we all face in our personal and professional lives are also those faced by AAC users. The problems we all face as technology becomes more essential in our lives indicate that our clinical role as primarily "technical troubleshooters" isn't likely to change for the better anytime soon.

In his book *Why Things Bite Back*, Edward Tenner points out that while technology of *all* kinds is rapidly becoming more powerful and full-featured, in the real world this doesn't always seem to translate into increased productivity and/or functionality. As our tools become more complex, more functions and features are installed automatically and run behind the scenes, a return to the "black box". Tenner points out that as a result of the growing sophistication of our devices, we

are steadily becoming tool *managers* instead of tool *users*. The inevitable result of such sophisticated tools is the increasing need for vigilance to prevent breakdown. Tenner points out that the benefits that we receive from improved technology are real and undeniable, but it is also necessary to be aware of the sometimes chronic problems that this technology can introduce, and instead of ignoring these effects or blithely waiting for better devices to solve our chronic problems, we have to be prepared to discuss and deal with these very real issues.

A co-worker of mine at the University of Western Ontario, who provides technical support to faculty, articulated this particular problem with computers very eloquently. He points out that, several years ago, computers were more difficult to set up initially, requiring step-by-step installation and configuration of individual components, but once they were set up correctly, they were easy to troubleshoot and maintain. Today, the situation is reversed. Computers and their operating systems are a snap to set up, but so much is automated and behind-the-scenes that when something goes wrong, it's becoming next to impossible to identify and, importantly, to *understand* the nature of the problem. Technology is *not* requiring less time and support, but is in fact needing more as it develops and expands its reach.

For me, all of this means that as long as the field of AAC continues to move more and more towards a technical focus, professionals and clients cannot expect

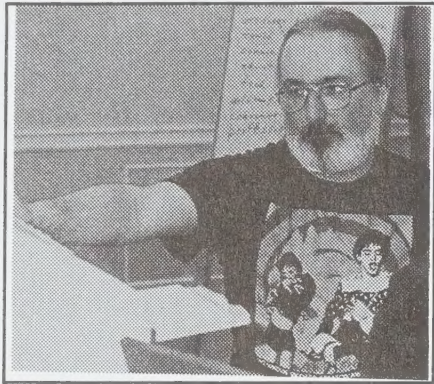
that communication technology is somehow going to reach a point where the amount of support and vigilance described in this issue will no longer be required. We aren't just in a "transition period" where all we have to do is wait to get those "better devices" that will need less support and maintenance. The transformations taking place in the field are ongoing, and very likely long-term. It's essential, then, that we all continue to acknowledge and talk about these issues in concrete ways.

I know many people feel that "appropriate" discussions of AAC technology should be more or less confined to reviewing the latest devices, features and developments; *this* is what AAC professionals and families need to know, and all the rest isn't very relevant to practicing clinicians. While I agree with and recognize the continual need to stay current, I also continue to resist the idea that the more basic issues of functional tool use aren't far more important to our role as communication professionals. I'm very glad that *Communicating Together* continues to provide a forum for these kinds of discussions. I hope that some of the issues raised herein strike a familiar chord with you — that you realize these problems and issues are shared by many others in our field. We hope we may offer some support and solutions. Reactions are warmly invited!

Tenner, Edward (1996). *Why Things Bite Back: Technology and the Revenge of Unintended Consequences*. Vintage Books: New York. §

Some Thoughts on Consumption

ROBERT HAAF



Robert Haaf

Hello again, everyone. All I can say is what I seem to say about all of my correspondence: I've been meaning to write, but...

What's more, given the focus of much of my energies over the past year, for my first column in some time I was fully intending to write about the Internet, and the possibilities that this technology can (and will) provide for AAC users, professionals and for the AAC field as a whole. Oh well, another time, I hope. Instead, this article is meant to set the tone for this *technology* issue, and I felt that the topics should be a little broader, maybe a bit more controversial than a high-tech "puff piece", so that my fellow editors (and hopefully one or two readers!) can respond to some different issues.

So, this feature is all about consumption, and specifically the kinds of consumption that seem to be prevalent in the field at this point in time. As someone who

has been involved with the field of AAC in many different ways and who is very familiar with many areas of technology, I believe that in some very vital ways, we (AAC professionals, users and families) are *being* consumed by the technology in our field, and by the ideas that surround that technology, at least as much as we are consuming any of it. While there are many sides to this statement, there are two trends that I feel represent largely negative results of the way AAC technology is being consumed, and I want to talk about these.

Technology Consumed: Consumerism as a Clinical Model

Over the past few years I've made no secret of the fact that the 'consumer model' as it is frequently applied to AAC makes me uncomfortable. If you like, you can chalk this up to yet another patriarchal clinician struggling to retain control of the entire clinical process; I know that far too many families leave the AAC service delivery process with this impression of professionals. Often, AAC clinicians and agencies are seen as the "gatekeepers" of technology, the ones who grant or deny access to available devices, with decisions being reached in what appear to be unclear or arbitrary ways. Some may say that encouraging a consumer approach to the clinical process is in fact an effort to combat these

feelings of frustration and place the decision-making powers with the clients/families. It's been my experience that the opposite frequently occurs. These negative attitudes can actually be exacerbated by the consumer-driven ideas and assumptions that are brought to bear on the assessment/intervention process. While I will argue as strongly as anyone that a patriarchal medical model never really had a place in our field, why do we want to replace it with a model that is almost *guaranteed* to result in less informed, less satisfied and less empowered AAC users?

In my experience, a consumer-driven approach to rehabilitation can be problematic because, in the effort to be "good consumers", people naturally bring assumptions from other aspects of their lives into the clinical process. When we approach non-AAC technology, there are certain assumptions that, as consumers, we bring to the table. When I walk into a store with the intention of purchasing, say, a microwave, I'm aware of certain facts. For example, I know that there is a range of appropriate technology out in the market, from the most basic (and inexpensive) models that will "do the job", up to deluxe models that offer many more features and possibilities. It's a given that, even if I don't really need the features offered by a top-of-the-line device, and even if I can't get one right now, those models

would do everything I need and much more besides. The implication for most consumers is that even once a decision and purchase is made, there will always be 'better' technology out there, which due to various constraints (other than need) the consumer is unable to obtain.

Most consumers settle for what is possible right now, trying to get something that will meet their needs but knowing that in a perfect world they would probably have something better.

Additionally, as a consumer I expect to enter into a relationship with a sales professional that is far from a collaborative, problem-solving partnership. Be honest — when you are approached by a salesperson in a store, do you see yourself as entering into a cooperative relationship, seeking assistance with an open mind? Or are you wary, knowing that the person you're dealing with has their own agenda beyond helping you find what's best for your needs? "Buyer beware" is an often-quoted summary of our approach to consumption in general; it's our role to get the best deal we can without getting taken.

Yes, I do realize that individuals and families searching for communication technology don't generally equate voice output with microwaves; the vast majority realize that assessment/intervention has a decidedly different goal. However, since technology is frequently a central focus of AAC, if clients/families are continually encouraged to consider themselves as AAC

technology consumers and if they view their role as obtaining the "best piece of technology", doesn't this practically assure that they will bring at least some of these beliefs and attitudes to the assessment process? Do these attitudes have adverse effects on the process and on the client/clinician relationship, and if so are they truly a desirable aspect of assessment and intervention for AAC technology?

My experiences, and the experiences shared with me by other clinicians and families, have repeatedly demonstrated perceptions that I can only attribute to consumerism. There is the assumption that, like any other consumable technology, the device that has the most features, the largest memory, etc., is the 'best' technology, and so is the device that ideally the AAC user should have. More than once, I have been in the position of feeling like I've denied an individual or a family the best technology, even when I knew that from a functional perspective this was not the case. I don't even want to talk about the situations where I didn't feel technology was required at all!

While a range of AAC technology certainly exists, regardless of the claims of manufacturers the range is *not* a hierarchy of "good-better-best". AAC devices vary widely in encoding strategies, vocabulary capacity, access methods, etc. The process of selecting an appropriate device is largely a qualitative one, trying to find the device that will best match

existing skills and needs rather than one that will "do the most". In many cases, a successful device is one that does very little in terms of quantity of use, because this is the device that will be utilized in the specific environments and situations where it's truly needed. A successful piece of technology is the one that fits best within someone's existing communication modes. It can be argued that the most successful communication outcome is the one that requires the least amount of technology.

To work well, the selection process has to consider all of the ways the individual communicates, where existing strategies fail, and what goals are important to the AAC user. It is this process that determines what technology is best suited to the individual, and not some absolute feature of any specific machine. This approach demands extensive collaboration — with professionals providing knowledge of communication processes and modes that include technology, and with clients/families bringing their knowledge of the individual, his/her strengths, specific needs, and goals. I have found that this kind of emphasis is very easily lost or distorted in a consumer-oriented interaction.

I'm not implying that AAC users and their families are entirely unaware of the issues involved, but when it comes to technology, the majority of families come into the clinical process knowing little about the

kinds of AAC devices available, their capabilities and limitations. Families that may have seen specific devices often believe that this is the device that will be the best for them, not appreciating the fact that successful use of technology is usually a result of a successful *communicator*, one who can maximize the potential of every communication mode and so make the technology work for him or her. The ultimate goal should always be successful communication, not even "successful technology use", and definitely not "technology at any cost".

Sounds great, but doesn't the consumer approach have a potentially different meaning? Rather than starting out feeling that the best possible collaborative decision has been made, families frequently seem to start out with the idea that "Well, this certainly isn't the best thing out there, but we'll try it and see." Additionally, as part of a consumer-oriented, technology-driven model of assessment, a clinician can comfortably make a case for showing a client/family the entire range of voice output technology that is available. This, it is argued, is "informing the consumer". I would argue that a needs-oriented, collaborative framework has to be in place before device information makes sense to families, and that in the absence of such a framework this kind of information isn't easy to evaluate. In an effort to inform consumers, this approach can instead set up a situation of

perceived loss. Getting anything but the top-of-the-line device is going to seem somehow inadequate.

I also can't help but wonder if attitudes carried over from a consumer model don't help to establish an unnecessary feeling of conflict between the client/family and clinician, between the purchaser trying to get the "best deal" for themselves or their child, and the provider with their own goals and agenda. I feel strongly that when technology enters the picture, attitudes change. At best, extra time must be taken to establish a working collaborative relationship. At worst, a cooperative partnership is never established and real communication needs can't be fully addressed.

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Am I suggesting that clients/families should just trust professionals implicitly, or that clinicians should instead make a priori decisions about technology in order to keep the client from making mistakes? Of course not. I am proposing the re-establishment of a more realistic

and healthier perspective. If you insist upon taking a consumer role, it's time to be very clear about what is being consumed. It's not (as the long-standing title of this column might suggest) purely technology. It's also not clinicians who are being consumed (except perhaps in the sense I talk about later on). It is, I would argue, an *educational process*. The goals of this process, for clients/families and professionals, are to become better informed, to understand the totality of communication for an individual, and not necessarily simply to obtain a device. If technology becomes an option, its role and importance is not assumed from the outset, but instead arises from the process of identifying needs.

I would be much happier, then, replacing the clinician-driven model with a *needs-driven* model, as opposed to a consumer-driven approach. In such a model, clients and families have the most critical role in the process. Without a thorough understanding of the individual and their needs, the team simply cannot make appropriate decisions about intervention. This is where the process should start, not end, and I believe that without it no truly functional intervention can be established. Helping clients and families to understand this role and its importance is critical. This understanding doesn't seem to be furthered when people think and act as technology consumers.

Professionals Consumed — Clinician or Technician?

Looking at the other side of the consumer interaction, can we seriously relegate the AAC professional to the role of salesperson? Well, I've had clinicians describe their jobs to me this way on more than one occasion, I've observed many clinical interactions that were hard to distinguish from technology transactions, and I've been in many situations that have made me feel this way. In a technology-focused consumer interaction, too often a professional's role can be summarized as: show the client/family the range of devices available, describe and demonstrate the features of each. Then when the consumer has decided on a specific device, help set up the financing, deliver it to the client's home, do the programming and technical training and be available when it breaks down. I don't know, that sounds like a salesperson to me.

Every time I discuss this particular issue with AAC clinicians, the response is the same — recognition, agreement and typically a personal story of frustration with the way things have changed for many professionals. This leads me to believe that the changes that I have experienced in my clinical role (and observed with many others) are not isolated to my colleagues or caseload. This is an issue that, while not exactly new, seems to be of growing concern to (at least some) professionals in our field. While

I think that consumerism has played an important part in this shift, I don't think that it is just the consumer model that has resulted in this situation; other factors relating to the technology itself need to be acknowledged and discussed.

The move away from dedicated communication aids towards computer-based technology is a movement that I see as largely positive and well past due. This ongoing change in AAC technology reflects the changes in the power and the portability of computers, and also a movement away from considering "face-to-face communication" as somehow a separate issue from written communication, telecommunications, educational technology, leisure, etc. This change takes a broader view that the most appropriate technology is technology that will meet as many of an individual's identified needs as possible. However, in moving from dedicated tools towards computer-based systems, AAC professionals have had to learn to set-up, configure, train and troubleshoot a much more complex technology. In my experience, professionals now have to learn about basic computer functions. They must master the installation and configuration of applications, the modification of operating system software, peripherals such as printers and scanners, the configuration of modem connections, the Internet, PCMCIA cards, and on and on. The result of a broader-based

technology is the requirement that AAC professionals, AAC users and their care providers spend more and more of their interactions focused on the technology, on operational training, on keeping it all working.

Even when an AAC clinician may fully recognize that technology is just one mode in an individual's communication system, this realization doesn't change the fact that this one mode still requires a considerable amount of set-up, troubleshooting, training and repair — demanding an amount of time that in many cases is completely out of proportion to the attention given to other communication modes, and in some cases is out of proportion to the role technology plays as a communication tool. Given the steadily increasing caseloads of most clinicians, the result is that, more and more, the bulk of an AAC clinician's time per client is taken up with operational issues. The role of the clinician as a *communication professional* is being consumed by the day-to-day requirements of learning about, applying and maintaining the technology, even when the technology doesn't necessarily play a primary communication role in a user's life. At the risk of sounding cute, the focus of AAC intervention is too often on keeping things *functioning* instead of keeping things *functional*. Issues of basic communication strategies, establishing opportunities for functional communication, even establishing basic skills and

strategies for modeling and facilitating communication, are too often left to chance. We hope that facilitators are able to apply the technology we have set up. And we hope that adequate support exists in the community. Is this a realistic expectation?

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I haven't reached this conclusion from empirical research. Rather, as a clinician, I know what my role has become, and as someone who works with other clinicians I see these kinds of situations regularly. I hasten to point out that it's not just a case of 'too-busy clinicians' opting for a more limited role. Often, clients and families will only call an AAC clinician if there is a problem, and that is typically a problem with technology (won't turn on, won't charge up, won't talk, etc.). By default, then, time with that client is taken up with repairing the problem. There is another issue that can affect all members of the team, and that needs to be acknowledged. For some people, focusing on

technology is often more straightforward, and easier, than dealing with the less clear-cut issues that surround functional communication, such as language development, vocabulary selection and pragmatic skills. In a consumer model of AAC, many of us can too easily convince ourselves that technology support is our only role.

The consumption of the clinical role is in some ways the most troublesome issue, because there really aren't any clear solutions. It's not as simple as saying "let's change our focus". The fact is, technology will continue to require high levels of support and attention, and will probably require even more energy and effort before we reach the point where the technology becomes 'operationally transparent' for the user. Shifting the bulk of technical concerns away from the clinician and towards a technician/trainer or technologist on an AAC team is perhaps a partial solution. However, clinicians I've spoken with feel strongly that as long as technology plays a role in AAC, they need to maintain a considerable working knowledge of the range of devices that they are responsible for recommending. This is an issue that clearly requires much more discussion than I can give to it in this editorial. Minimally, I believe that AAC professionals can and should acknowledge their specialist role to all of the other members of the intervention

team. They need to explain to clients and families that the demands of technology will often mean that purely technical issues will end up taking much of their time. Maybe they also need to begin to acknowledge to themselves that they can't effectively address all functional communication issues, and start to look to (and plan with) other team members to maintain a more specific focus on communication issues. In this way, everyone's expectations are likely to be more realistic at the outset and will then stand a better chance of being met.

Is Technology Worth It?

OK, so it's a trick question. The question should be, is it *necessary*? What are an individual's communication needs, and will technology help to meet at least some of them? Ultimately, what is technology worth to the individual? If technology offers the ability to explore new opportunities, to do something that the individual hasn't been able to do another way, then that technology becomes valued. Too often, it seems that people approach the use of technology from the standpoint that technology has to be better than non-technology, and its value is then assumed from the very beginning. If it doesn't prove to be what people expected, it's the fault of the process, and not of the assumptions and expectations around technology. The belief develops that the 'right' device would do so much more, and people start to feel cheated.

Too often, our assessment processes and regular interventions lack a sufficient amount of emphasis on these critical issues. We need a

renewed focus on the specific goals that an individual brings to the assessment process, and how this is the only route to establishing a functional role for technology. We need to re-emphasize from the beginning that the underlying process is a clinical one, emphasizing communication functions and opportunities across the lifespan, and not a close-ended consumerist scenario. In my experience, the consumer approach is just too limited to

result in more aware, more satisfied AAC users and families.

Technology *is* important. When it is selected and introduced as part of a collaborative process it *can and does* become a valued part of an individual's communication repertoire. Whenever the consumption of technology begins to drive clinical decisions in our field, however, everyone involved stands to lose something valuable.

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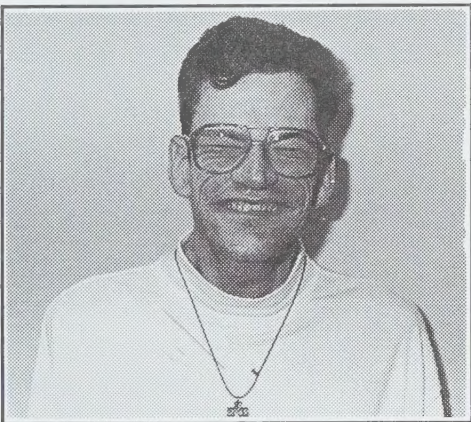
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PAUL'S PLACE

PAUL MARSHALL



Paul Marshall

This is my second attempt at putting my column together for this issue of *Communicating Together*. As I read over my first attempt, I saw that I was writing still another article based on the impact of the technology that so often fills the lifestyles of many AAC consumers. I said no, I am not basing another column largely on technology.

As I was thinking about the disappointments of many professionals in the AAC field and in the larger disabilities "movement", I began thinking about the professionals that are my co-writers in this magazine. My heart goes out to these people because like many of you who picked this field of work, they had many other options of occupations that they could have gone into. I know it was not for the money or a big ego trip. It was because each of them really care and wanted (and want) to make an impact on improving the standards and quality of life for the nonspeaking and the disabled population generally.

We so often deal with the struggles of the AAC consumers and their families or their

caregivers, that we sometimes overlook the heartbreaks, the struggles that professionals have to live with. These past couple of years, I edged a bit into their world, and it is not all fun and games. Many times, they are beating their heads on walls because funding and resources are just beyond their reach. They are often frustrated by those who have the power over resources.

I am really afraid, what will ever happen if these people just say, "It's not worth it. I can get a 9 to 5 job where I don't have all this hassle!" Also, is this a dying field of work? Why go into something that will probably chip away at your inner self? We are seeing that the problems are outweighing the benefits. Are there enough "high days" to keep

individuals in this field of work? After all, we are living in an age where if you have to sweat with your job, especially sweat emotionally, then the work is not worth it. So what keeps the people I know in this line of work? I am sure as a follower in their large footsteps, there are winning situations that provide the "gas" to keep going.

There is nothing more empowering than knowing that, because of your work, someone's quality of life is at a higher level. Please notice sometimes (and I am sure that I am fully correct by saying most of the time) you have to measure in inches and not in feet or miles when you are measuring the level. The question for many of us who are working in this field is, are we prepared to wait and make the inches into feet and feet into miles?

So, what does all this have to do with technology — the theme of this issue of *Communicating*

**Sometimes [professionals]
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Together? I like Rob Haaf's tag name for the clinics that have the power to provide consumers with

technology equipment. He called them "gatekeepers" of technology. The sad thing is, there is so much red tape in many of these clinics that committed people get disheartened. Sometimes they are trapped between the consumers who really need this equipment to improve their quality of life to the point where they can give back to their society, and the limited powers they have to get resources and funding.

Let me leave you with this idea. I couldn't do what I am doing with my life without the technology that I have. I know of many people who are so-called "normal" and they couldn't do their job without the technology that they have. Their standard or quality of life depends totally on technology. Now, isn't it funny when it comes to getting a piece of high tech for an AAC consumer, we often have to run up hills and across the narrowest wires while trying to battle countless obstructions. I am getting discouraged at what seems to be happening to our resources to help AAC consumers to integrate and take part in the mainstream of their communities.

When I see the overwhelming resources around me, but a lack of commitment by those who could be a source of empowerment to many professionals and most of all

for the end users, it is disheartening. But, my discouragement will never take away my pioneering spirit. I am sure I am talking for my co-writers and many of you, in maintaining an ongoing commitment to improve life for many around us.

Let's never stop fighting the battle!

§

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The International Society for Augmentative and Alternative Communication (ISAAC) offers members reduced rates for: **Communicating Together**, **Communication Outlook**, and **Augmentative and Alternative Communication** (AAC journal).

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Trapped in Technology

TRACY SHEPHERD
& BRENT DUNCAN



Tracy Shepherd & Brent Duncan

The following article was written as a team effort by clinicians working in the field of consultative augmentative and alternative communication. Tracy Shepherd and Brent Duncan are speech-language pathologists who have worked in this area for many years. They are currently employed at Thames Valley Children's Centre in London, Ontario. Together they have brought an interesting focus to the issues of how technology (and perhaps clinicians) are consumed.

Let's not beat around the bush, we are technohounds. That is, we think "computers is neat". We would even go so far as to say that technology can be used to provide valuable, useful communication tools. But, technology is only as good as the use we make of it.

The use of technology provides nothing magical, just an assortment of tools. In our

clinical practices, families who are exploring augmentative communication options often expect some grand piece of technology, and are disappointed if they leave with anything short of a Digital Satellite Voice Synthesis Neuroemulator. You know, the one that slices, dices, makes julienned fries, and somehow miraculously provides a child with a severe speech impairment with the ability to clearly communicate all his/her thoughts, wants, feelings and needs. Wow! We wonder why the families often wind up feeling let down by their experiences with technology!

As professionals, we seem to have arrived at a point in our service delivery where we have lost control of the clinical process. This statement should not be misconstrued as meaning that clinicians need to control and direct an individual's care. In fact quite the opposite is true. Rather, it seems that the overall clinical process has become technology driven, rather than clinically driven (needs driven). In our experience, the clinical process from beginning to end seems to focus more and more on technology. As time has gone by, we've often felt more like technological representatives/repairmen than clinicians. Ask yourself, as an individual who uses AAC technology, how much of the time with your AAC therapist is spent talking about technology, looking at

technological options, programming and adapting technology, or repairing technology? As a clinician, how much time is spent on the former, and how much is spent revising and focusing communication strategies, developing good communication skills, modeling these communication skills for care providers and facilitators?

Since family-centered care has become a philosophy of service delivery, expectations placed on clinicians and families have dramatically changed. Families are expected to choose what solutions are best for their child. These should be informed decisions, therefore clinicians have the responsibility of showing a variety of options that will meet the needs of the individual. Being family-centered has its place in many cases but we often begin to wonder if and how to apply these principles to the provision of AAC service without acting like a car salesman. It seems that the trick is to strike the balance between allowing the client and families to have appropriate control and informed choice without simply dumping the clinical decision-making into their laps. We need to be mindful that communication professionals bring knowledge and experience about various communication strategies, devices and techniques but families bring vast knowledge of their unique set of values, priorities, wants and needs to the

AAC process. When given a variety of options that will all meet the child's needs, families are left wondering if the "top of the line" device would be the best.

The Mythology of AAC Technology

There seems to be a whole mythology of technology that has developed in the field of AAC (as well as the rest of our society). In the field of AAC, this mythology seems to be upheld by many AAC users, their families, and many professionals alike. Myths about AAC technology are sometimes stated and sometimes they are apparent through our actions. The following is a far-from-exhaustive discussion of some such myths:

1. "Technology must be useful because it is so expensive."

A diamond ring is expensive too. As to how useful it is, we guess that depends on your perspective. Technology, as with anything, is only useful if it allows you to do something that, without it you are unable to do as effectively, or at all. People expect that if it costs more it must be better. As we consume anything in today's society we all feel that way. For instance, a Neon will do the job and get me from A to B but if we had a more expensive car with all the perks, wouldn't our lives be a little more comfortable and easy? And these are the expectations that families often bring to the decisions of choosing technology.

Device manufacturers perpetuate these expectations (perhaps unintentionally). Companies create products that "do it all", and have every possible feature. This may be an effort to increase sales, or an attempt to make a product that will serve many individuals — or both. The concern here is first, that prices are inflated beyond comprehension and second, these overpriced models are then looked on by families as the Cadillac models that must be the best available for their child. In many cases other more reasonably priced devices will meet the user's needs now and for many years to come, but these lower priced devices are perceived as just "making do". Many individuals do not require the kind of power and extra features of these high end devices, but many feel they are not getting the best solution if these expensive devices are out of reach.

2. "If my child gets a communication device then he'll be able to tell me what he wants."

It takes years to acquire the linguistic and social skills of communication that allow us to express and understand our thoughts, feelings, wants, needs, etc. Having a communication device will provide only one tool, one method that may be used to provide an opportunity to interact and learn the rules of language and communication. However, it must be remembered that it is the acquisition of linguistic and social knowledge that allow one

to be an effective communicator, not the device. A pen can't write, but it can be used to write. The point is, you must acquire the skills necessary to write, for the pen to be an effective writing tool.

When a referral is made for AAC, it is often discussed that clinicians can provide them with technology that can "help the child develop communication skills". Technology is perceived as "the answer". There are so many other techniques/strategies that AAC clinicians can employ to help individuals communicate but getting *stuff* is perceived as a concrete effort to help.

Technology is a *tool* that can make up one part of an overall communication system. Technology alone is not the answer! Although a voice output device may allow a child to communicate in additional environments or on the telephone, it is the low tech or even no tech communication solutions that are more frequently used and more functional. These modes are easier, faster, portable, the battery doesn't die and they don't spontaneously stop working. We quote a good friend and colleague when we say, "a good communicator can overcome bad technology".

3. "High-tech communication aids are better than low-tech aids."

We have yet to meet an individual who uses AAC strategies/technology who is unable to communicate with us *without any technology*.

Basically, a competent communicator is a competent communicator! Technology is often considered the most attractive option. Why? Look at it like this. Would you rather have a fancy computer or a binder filled with symbols? Having technology is perceived as desirable to families even before the issues of the intended use of the system or the specific needs of the user are addressed. Regularly, we have clients in for an initial assessment and have heard the question, "So when do I get the computer?" Often times we have asked ourselves if technology is the best way to meet a particular need, while in reality the family *wants* the technology! Being family centered we follow the family's lead and the technology is prescribed. At reassessment, has it met the communication goals and made the individual a more effective communicator? Sometimes.

Changing Expectations

Clinicians have taken on the role of the technology support person and lost their role as the communication specialist. We often recommend a system, help to get funding, do some facilitator training on how the device functions and do some initial vocabulary development and programming. Then, due to growing case loads and expectations from facilities, we are onto the next individual on the waiting list. Our statistics and outcome performances are more closely related to how many clients we can service than to the

quality of that service. Unfortunately, we tend not to hear back from many of the families we deal with until there is a technological problem and we are called on to trouble shoot. Yes, we definitely need to have a working knowledge of many types of technology and be able to do some cursory problem solving, *but* more importantly our training and expertise lie in how to facilitate communication, not how to install device drivers. Clinicians don't appreciate being referred to as "the computer person". Often people don't even realize that we are speech-language pathologists or occupational therapists or communication specialists. Why not?

Our relationships with our clients have tended to move far away from the intent of communication. We have had far too much focus on repairing technology breakdowns when we would all rather have been focusing on repairing communication breakdowns. We think of Janice Light's (1989) paper about communication competencies and if we think about our typical week! Well over half of our time is related to *operational* competencies, how to get a system running, keep it running and teaching facilitators how to make it work. There is little time left for attention to *strategic, social* and *linguistic* competencies. Although, learning how to operate the device is a key feature for care providers who want to be effective facilitators, it is our

experience that this component tends to overshadow the use of the device as an effective communication tool.

So what is the focus of our role, and how should that focus change? We don't think clinicians want to act as "the computer repair person". We think clinicians want to get back to helping people communicate in any way possible. We don't want assessment to feel like we are bringing our clients into "the show room". We would like to help families identify and prioritize their needs and help them find solutions. Granted, some of these solutions will involve technology, but we want to be called on for more than our expertise in technology. We want our focus to be on the use of technology as a functional tool to enhance communication. We believe the bulk of our clinical involvement should address functional communication strategies and skills.

It is argued elsewhere in this issue that in applying a consumer model to the AAC clinical process, AAC "consumers" and AAC service providers are potentially placed at odds. The consumer's role seems to be that of getting the elusive piece of technology that will solve all their problems, and the role of service provider seems to be that of selling the clinical process and technology. This is often to the detriment of functional communication. Members of the AAC community (AAC users, families, and professionals alike) are challenged to:

1. Focus on the wants and needs of clients and families instead of on what tool is being used to communicate.
2. Develop realistic expectations about communication and communication devices — what they can and cannot do.
3. Facilitate the identification of needs, and attempt to match technological options to the communication needs that have been identified.
4. Keep it simple!

Reference:

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ISAAC '98 Putting the Pieces Together

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For information, contact:
Secretariat ISAAC '98
c/o Incentive Conference Ireland,
1 Pembroke Place,
Ballsbridge, Dublin4, Ireland

Phone: (+353) 1 6671711

Fax: (+353) 1 6671713

email: ici@indigo.ie

SYMBOL TALK

Where Have All the Graphics Gone?

SHIRLEY McNAUGHTON

Rob Haaf's feature article in *Getting Technical* inspired a strong supportive reaction on my part! I wanted to keep saying "Right on!" as I read Rob's perspective. The concerns he expressed regarding those in the field of augmentative and alternative communication (AAC) becoming consumed by technology have long been felt by me. And yet, like Rob, I have very high regard for the new vistas created by technology. What I took from his article and what I have long believed is critical is the *locus of control*. If we allow ourselves to be controlled by technology, the

future is bleak. If we harness it and, within AAC, use it to respond to the needs of those who lack functional speech, then the possibilities are endless.

When the associate editor team decided that technology should be given attention in the December issue, we asked Rob to write this issue's editorial/feature article, to which we could all respond. We knew he would provide us with a stimulating overture. His inclusion of consumerism and consumption within this issue's theme has done just that! Thank you, Rob, for challenging us to think more about the need for collaborative, problem-solving partnerships!

Five years ago, in giving the keynote address as the Everest & Jennings Distinguished Lecturer at the Rehabilitation

Engineering Society of North America's international conference on Technology for Consumers, Toronto, June, 1992, I presented the need for collaboration and used a connectionist model to illustrate my argument. "Working together" was the motto (and the Blissymbol) I suggested as a way to support a constructive relationship between professionals and AAC users. Since that time, the widely pervasive influence of consumerism and our market driven North American economy have placed many obstacles in the way of AAC professionals "working together" with AAC users. Rob's article identifies many of the challenges. Collaboration is all the more to be treasured when it occurs. Each

time I come upon a truly collaborative team, I observe mutual respect on the part of all team members and I see AAC users and/or their parents participating as equals.

Before turning to my primary area of interest, graphics, I must comment on one effect of the consumption paradigm with regard to assistive technology, that concerns me greatly — the impact of market size upon research and development. There is now great difficulty in obtaining funding to support the development of technology responsive to the needs of individuals requiring a particular type of technology, when the target population is small in number and does not offer a large and profitable market. Sadly, market size as a primary determinant of value (rather than the ability to improve communication) is one of those “ideas that surround technology” that Rob Haaf mentions.

Turning to Graphics...

The impact of technology is very evident in the area of graphic representational systems. Frequently, whatever picture set is displayed by a device, or is included within readily accessed software programs, is the one given to a client. Sometimes this means the individual must learn a new way of representing their knowledge — previously organized by means of another graphic representational system. Sometimes this means that the individual is given a more limited

way of representing knowledge than his or her cognitive abilities afford. Sometimes this means the individual is given a more complex system than he or she can fully master.

Note the word “given” in the preceding sentences. The occasions are rare that I hear of *collaboration* involving AAC users or their parents working with the professional team to decide which graphic option(s) of several would best meet the long and short term needs of the AAC user. When this does occur, however, a balanced communication and educational program becomes possible. The needs relating to language and cognitive development, literacy acquisition, vocabulary expansion, display organization and display access can all be considered along with the technology.

I have recently had the opportunity of collaborating with the team of a delightful four-year-old girl, whose parents *were* invited to consider several graphic options. Their daughter was very bright, and was showing the ability to identify letters and spell familiar words. The options of orthography, PCS, and Blissymbols were all presented to the parents. I was invited to describe the features of Blissymbolics and other team members told the parents the pros and cons of the other options. After reading and discussing the options over a period of several weeks, the parents decided in favour of

Bliss. The technology will be decided in future months. At this stage of this young girl’s life, the way in which her language is represented is being given first consideration.

Deciding upon graphic options prior to technical options is not occurring often these days in North America. If I relied solely on my observations of current clinical practice, I would believe that it is sufficient to match technical features of a communication device to the physical capabilities and needs of the individual, and that whatever graphic representational system comes on the device will do. I have always found this very difficult to accept! As a professional beginning in AAC in the seventies, I came to recognize the many differences between Blissymbols, the various picture-based sets, rebus symbols and later minsyms. Certainly, the research of the eighties showed that pictures are more iconic and less complex than either Blissymbols or words. The findings regarding *learnability* were never clear, however. Recent research I have undertaken, that I hope to report at the next ISAAC Conference in Dublin next summer, failed to find any difference in the number of learning trials required to learn pictures and Blissymbols *when the instructional approach was adapted to the type of system being taught*. We should remember that we have yet to see research that says iconicity should be the primary factor in deciding

upon a graphic representational system. I believe that, a much more important factor to consider is the developmental level of the learner. One of the effects of the time required for the implementation of technology is the limited attention being given to graphics and their differential effect upon expressive language, literacy acquisition and cognitive development.

Recent research in Europe is indicating that children who use PCS, the dominant picture-based system in North America, tend to rely on single term (word) utterances even after two years of usage. Our young Bliss user, referred to above, produced her first three-symbol utterance after one month with her Blissymbol display. Her previous communication of four months with a picture board had been limited to single picture utterances. Of course, the progress of one child cannot provide us with answers to the many questions to be asked about graphics. Her performance, however, points to the need for further research and for responses to the questions!

In our Blissymbol workshops in the early seventies, we always began by saying, "Bliss is not for everyone." We recognized the need to consider the needs of the individual learner and to consider both short and long term objectives in deciding upon a graphic representational system. We identified the differences between pictures, words, and Bliss and asked workshop participants to consider

from a graphic processing perspective the cognitive and language developmental levels and communication needs of each speech impaired person in every team deliberation. Why do I not see this happening in AAC training today?

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I suspect we are back to the same root cause as that discussed by Rob Haaf. In consumer-oriented interaction that focusses upon the "best technology available" and makes the AAC professional responsible for set-up, configuration, training and the trouble shooting of complex technology, there is little time for other factors such as optional graphic systems to be considered. After all, as identified by Rob Haaf, "focusing on technology is often more straightforward and easier, than dealing with the less clear-cut issues that surround functional communication, such as language development, vocabulary selection and pragmatic skills." To Rob's list, I would add cognitive and literacy development, and I would consider the varying effects of different graphics upon all of the issues that *surround* functional communication.

Rob suggests that a good starting point for AAC professionals is acknowledging to themselves that they *can't* effectively address all functional communication issues. I have seen this happening in the teams to which I am invited to bring Bliss information. When this occurs, I have the opportunity to share what I know about Blissymbols. Through my involvement in team deliberations, those professionals whose training has not included Blissymbols are able to gain new knowledge. Graphics become one component among several that are addressed in arriving at a decision.

In the instances in which AAC users are already using Blissymbols, the decision can be made as to whether or not they wish to maintain and further develop the system they consider their first language or if they wish to learn a second language. Whatever their decision, it is an informed one. They are presented with options, and these are considered by a collaborative team in which the AAC user and the professionals *work together*.

Ensuring that decisions relating to graphics are given the attention they deserve can be one defence against being consumed by technology. Let's hope that, in so doing, the *range* of graphics available to AAC users will be rediscovered!

Reference:

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Assistive Technology, 5 (1), 7-10. §

Buyer Beware or Consumer Be Informed

GEB VERBURG



Geb Verburg

I would like to make a case for — and paint an initial picture of — a model of rehabilitation resource services that incorporates different versions of teletechnology in a productive and possibly useful way. This message also brings Good Cheer and Best Wishes for a Happy New Year for us all. Two more to go for the big three 0.

In my previous column I chose technology as one of the biggest change engines of the past two decades. Its strengths and benefits were its ever growing capabilities, versatility and its commercial availability for AAC, seating, computer access, environmental control and telecommunication. The challenges of technology are its continuing user unfriendliness, its allure as a must-have consumable and, for some of us, definitely including me, our beliefs that technology can solve all problems. The latter is of course not true, it is usually people who solve problems.

Robert Haaf, in his editorial, is concerned about technology driving the service provision process instead of the communication needs and abilities of the client. This concern is very real but does not, in my opinion, depend on whether a consumer-model or a clinician-model is adopted. It may have to do with the technology's continued user-unfriendliness, but more than that it has to do with another and related issue that Rob raised.

Caveat Emptor — Consumer Be Informed

I was struck by Rob's dilemma of useful technology that stands in the way of clinical care. His reference to consumerism and the need for collaboration between consumers and clinicians caught my attention, particularly his mentioning of the Buyer-Beware idea. I interpret "buyer beware" advice as a recommendation for consumers to be as informed as they can possibly be when making a purchase decision. I also believe that the best consumer is an informed consumer, where I think of parents and clients as consumers. And, I believe that our field does perhaps not do enough to inform, teach, or train parents or clients.

Consider the amount of literature that is available for parents — about children, their education, schooling, food, fads, toys, fashion, behaviour or behaviour problems, careers, sex, crime, drugs. On the whole this

literature focuses on able-bodied children. In many ways children with disabilities are the same and this information applies. However, in many respects children with disabilities differ substantially and warrant a separate literature for themselves. Ideally, parents need information that is tailored to their child's particular abilities and the developmental stages and challenges and opportunities that their child and family could expect to encounter.

In most cases, a child born with an impairment will be disabled and/or handicapped throughout his or her life. Adults with disabilities are much more likely to grow old with their disability now than 20 or 30 years ago. Depending on the level or severity of the disabling condition, the child's parents will take care of the child until adulthood. If the young adults are capable of living independently they will take care of themselves for the rest of their lives with possible assistance of caregivers, assistants or spouses.

Any parent will tell you that caring for a child is a fairly involved process. When your child has a severe physical *and* speech impairment the process is much more complicated. Yet, I believe that there are not nearly enough easily accessible and focused educational materials for parents to better take care of their children with disabilities, nor for young adults with disabilities to help them better take care of themselves if they so choose.

What if ...

Some issues ago I attempted to develop an argument for a system of care in which knowledge about the care (and treatment) of children with disabilities should be actively taught, or at least, freely made available to parents of children with disabilities. This knowledge support would be in addition to and not at the exclusion of a system of properly staffed children's and adult rehabilitation centres.

If such an information resource or educational system existed, then parents of children with mild cerebral palsy would be able to learn (more about) what they need to know in order to take care of their children in the first weeks and months of life, the next six months, the second year, the third, and so until the children or young adults are capable of learning for themselves and (may) become capable of looking after themselves.

Informed consumers with disabilities are, in most cases, the result of many trips to the treatment centres and much more trial and error on their own.

Parents of children with moderate or severe cerebral palsy would have different modules to learn or to consult as would parents of children with different

disabilities and/or different functional needs, e.g. children with spina bifida, or epilepsy, or developmental delay. Knowledge of care and treatment of adults with disabilities would, in the same way, be made available or be taught to young adults or adults so that they can look after their own needs with or without help of professionals and/or assistants.

At the moment, informed consumers with disabilities are, in most cases, the result of many trips to the treatment centres and much more trial and error on their own. The ultimate aim of an information resource and support structure for parents and adults would be that the expertise about a child's care comes to reside with the parents and the expertise about care as an adult with a disability would be the adult's.

This, of course, does not mean that there would be no need for professionals. In such a system, professionals might be more likely to encounter "well informed clients" or "beware buyers". This should make for a much more equal and collaborative relation of which Robert Haaf speaks in his editorial.

What do we have?

How much training material does exist out there? How many "How-to manuals" for the new parent of a child with cerebral palsy, spina bifida, head injury, developmental delay are on the shelves in the bookstores? If they exist, how good or how practical and how accessible are they and how well do these

materials identify the resources that are available for a child who is nonspeaking, whether these be high or low tech? Do these books or resources address parents, caregivers, clients and explain what the determining factors are for choosing one over another type of technology? I believe that there is very little specific information available — information that is tailored to day-to-day care and addressed to parents and clients.

This is odd and yet understandable. Odd, because more than parents of "able-bodied" children, the parents of a child with a disability need special resources and support. Whole sections of bookstores are dedicated to parenting literature for babies, toddlers, infants and so on. Yet, parents of a child with a disability must go to treatment centres where staff members have been trained in the developmental patterns of children with disabilities.

It is, however, understandable that there does not yet exist an extensive literature about parenting children with disabilities. There are at least two reasons that the literature about do-it-yourself care is not as extensive or non-existent. The first one is a market reason. There simply are not enough customers to make a profit on these books (10% of the global market or less depending on the level of specificity of the material). The second reason is the fact that this support has always been provided by professionals.

Whether this support material can be provided, and whether

parents will use it or prefer rather to continue to visit treatment centres where this knowledge is dispensed, is a question that can only be investigated when these resources are in place. I know from informal conversations that one of our local disability associations is seriously considering developing a system that provides information to parents of / and children with disabilities. I have earlier mentioned the RESNA (Rehabilitation Engineering and Assistive Technology Society of North America) listserv in which professionals ask question via the Internet and get responses back within days or hours. These initiatives and the fact that we have newer technology that can provide information in new and better ways ground the argument presented in this article.

Another What If...

If we would be able to reallocate 20% of the budgets currently spent on training professionals, to the development of learning and support materials, then I guesstimate that in about three to five years there would be enough support materials to, in principle, allow parents of children with disabilities to have adequate information sources to be able to take care of their children more independently. We would still require treatment centres and a cadre of professionals who would be able to provide services and support but parents would be able to become primary caregivers with the resources that would make their tasks more manageable.

Just some support materials (books, videos, instructional materials) will not solve the information and support needs of parents raising children with mild, moderate, or severe disabilities. They need much more, and I think telecommunication technology is at a stage where it can provide a remarkable array of services that combine telephone, fax, email, Internet, interactive video, distance learning, instructional materials, and live-video consultation. With current communication equipment and technology it is possible to build an information and support structure for parents of children with disabilities and for young adults and adults with disabilities that will provide a range of service and information options at home or in their community irrespective of where they live.

Technology

Call/Data centres are a new species of information provision service which can give information by phone (voice messages), give a caller access to a data warehouse, and can connect the caller to a person (nurse or therapist) who can give further information or decide whether the caller should come in to the office (GP, physician), clinic (S-LP, or therapist) or whether the caller should go to the nearest hospital's Emergency Department. Inside such call/data centres, the incoming calls are analysed and the caller's identity (using caller ID features) is established which allows the computer to pull up the correct file or information about

the client (caller) and which lets the responding professional or administrator be more effective in his/her response. Such call/data centres are being used as medical call centres in the US and can of course be used in many types of rehabilitation services (clinics, device prescription centres, help lines, appointment booking systems).

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From the point of view of the clients/parents, it is helpful to have access to what could be like the "talking yellow pages" for advice about one's child with always the option of a real person to ask questions of and share and trouble shoot difficulties. Information can also be faxed to the callers. The technology required to access call/data centres is an ordinary telephone (and for faxback, access to a fax machine).

World Wide Web (WWW) Instructional materials are another, relatively new, potential source of information that is becoming more accessible to

people from their homes. Many universities and colleges are presenting courses over the Internet. Distance learning is one of the most rapidly growing forms of education today. Increasing capabilities of modems (i.e. the devices that allow your computer to communicate with other computers over ordinary telephone lines) allow for faster transmission of more data and allow for pictures and to some extent moving images to be displayed or played back on your computer. Interactions on the Internet can be one-way (user reads or gathers info) or two-way (user asks question and, some time later, teacher or consultant or other users respond). Interactions can be asynchronous (when questions and answers are time shifted or delayed) or synchronous when student and teacher or any other combination of two or more people interact immediately by typing on the keyboard. It is for example possible to join a chat-line or chat-room and dis-

cuss issues (by typing) in a more or less live-interactive way.

Another asynchronous (i.e. not at the same time) version of the chat room is the listserv, a kind of bulletin board where people can post questions and receive answers from professionals or other parents from around town or around the world. The required technology for access to Internet-based information and / or instructional courses is a computer with a modem, an Internet account, appropriate software, and a telephone line.

Live Video Consultation is a technology that is currently available in which people can see and hear each other and communicate live. The quality of the images is much better than the current Internet Protocol-based video images but is not as good as TV images. At the Bloorview MacMillan Centre, we have used videoconferencing systems for almost a year now for meetings, educational and consultation

sessions. Already a number of excellent applications have been identified and further work on the evaluation of additional applications is planned. The technology required for this is not as commonly available as the previous two types because a special telephone data-line (Integrated Services Digital Network or ISDN line) is required as well as a special card and software for your computer.

What Could Be

When these three options of communicating and information sharing are combined into a single service that can be accessed through a number of media, we will have a resource that is available anywhere and anytime. The quality of this service will depend on the quality of the content that is stored in the databases, and this will be the greatest challenge to the creation of such a teletechnology remote rehabilitation resource. §

AAC: AUGMENTATIVE AND ALTERNATIVE COMMUNICATION

*The Official Journal of the
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Editor: **David R. Beukelman**, Professor of Communication Disorders,
University of Nebraska, Lincoln, NE. 68583-0732, USA

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Nola's High-Tech Journey

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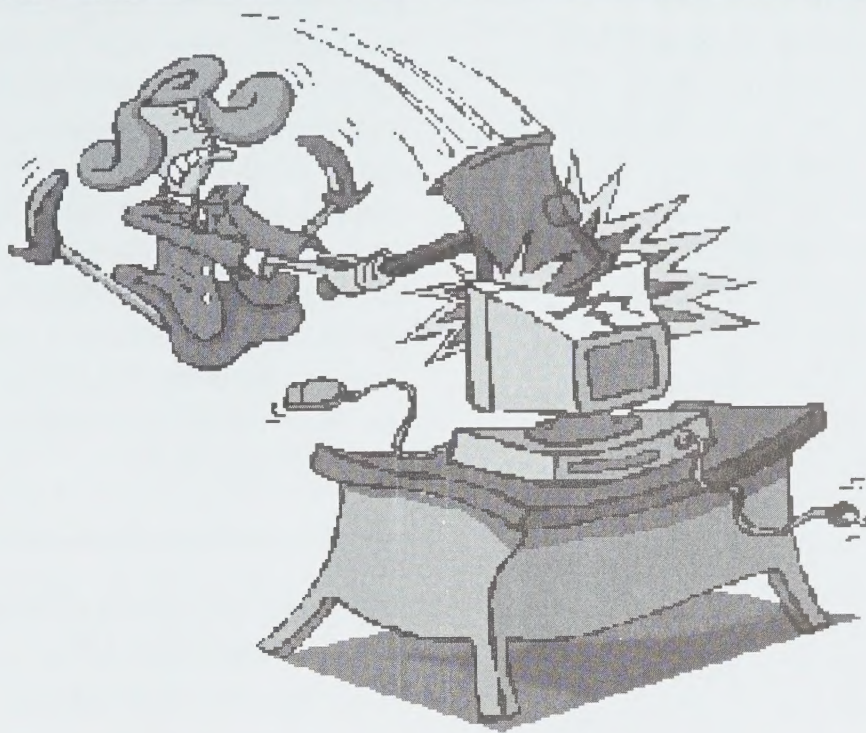
For this issue, those of us who are writing articles are supposed to respond to Rob Haaf's editorial. I'm supposed to provide a "consumer's perspective". Well, having just read the editorial for the umpteenth time, I still haven't been struck with any bolts of creative juices and I still don't know what I'm going to write about. So, I have decided to write about my own experiences with technology. People who know me are now probably holding their breath because they know I have an ongoing technology nightmare which has just increased my sense of humour and my belief in Murphy's Law: Whatever can possibility go wrong, *will* and *does*!!!!

Up until the late 80's and early 90's I wasn't overly impressed with technology and didn't see how it would ever help me. Yes, I had been working with Dr. John Eulenberg, Director of the Artificial Language Laboratory at Michigan State

University on developing a voice output communication aid. Although John showed me what technology could do for me, I still wasn't 100% sure of it. Looking back now, I realize the biggest part of the problem was the distance between John and me. When I would get home after visiting him, I didn't have any ongoing support. Sure there were long distance phone calls but you can only achieve so much over the phone. I'm definitely not blaming John. I appreciate all he has done for me. It was just that at that time I fell through a lot of cracks. I was too old to receive services available for children but there weren't a lot services available for adults. This could be another article so I won't pursue it. I was leery of technology because there wasn't anyone who seemed willing to work with me. I communicated quite effectively with a word

board and my electric typewriter. I got a Radio Shack computer which proved to be almost useless for my needs which only added to my opinions about not needing technology. Boy, have those opinions changed!

In early 1991, I was willing to accept the fact I needed to get a computer, which has proven to be the best move I ever made. In 1992 (I think) I received my phone communicator. Receiving the phone communicator began a great relationship with Tracy Shepherd. Finally, I was getting technology that seemed to be working for me. Also, there was the fact that I had some support for my technical equipment. Rob talks a lot about the relationship between client, family, and the clinician. Unfortunately, I have to agree with him. A lot of time spent with my clinician, Tracy, was spent "fixing things" or looking at new equipment.



Fortunately, I didn't need a lot of training or functional opportunities to learn how to interact with people and my equipment. It came naturally to me. I knew how to communicate with people; all I needed was devices that helped me do the job. From the time my phone communicator was working, I was making phone calls independently. I have the long distance bills to prove it! Although my phone communicator is a wonderful device, it has also provided a lot of grief when it has refused to work. The phone communicator has been the beginning of my technology nightmare.

In 1994 I got a new computer. I did a story about my new computer in "Yucks & Wows". Let's just say that anything that could go wrong did! Eventually, Tracy, along with the O.T. got everything working in harmony and I was a happy camper. I'm still using the same computer today.

So what's the point to all this? Well, number one I'm here to say that technology does change a person's life, *but* the individual needs to want this change. And most importantly, proper support is a major factor!!

Let me go into what is occurring in my life at the present time. Although I have support from the AAC clinic, in all honesty, most of my support comes from friends who are "computer nuts". There has been a guy at church who used to be a computer technician. He's now a photographer but is still very

knowledgeable about computers. Put it this way, he has gotten a few calls from me that begin with the word "Help!" He'll then ask why I'm not using my phone communicator and when I verbally say "I can't" he knows my computer has died and I need his help. He says even with my speech impairment there's still a distinct tone in my voice that he can detect when my computer is giving me problems.

**Technology does change
a person's life,
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Within the last few months this same friend is slowly updating my computer and will eventually switch me to Windows 95. When I switched from a 1200 to a 56K modem, things opened up for me. I'm now on the Internet all of the time. For the first time, I feel equal to "able-bodied" people. I go into chat rooms and have the time of my life because the people who I'm talking to don't know I'm a person with a disability. Guess what? I find people in chat rooms use short forms, don't use capitalization, and can't spell any better than I can. It's great! I wouldn't want to think what my life would be like without e-mail now. About four months ago I started editing my church newsletter which has lead to a friendship with another guy from

church. This guy does the church's web page and is in the process of teaching me about web pages. He also has amazing knowledge of software and a talent of giving step-by-step instructions without making you feel like a complete idiot. The bottom line is that technology has made me feel equal to people.

The majority of my computer problems are common everyday problems that happen to everyone. I'm able to do things with my computer that I wouldn't have been able to do. As a person with a disability, I feel good about myself. I feel good even though I experience numerous frustrations each month as I try to get the church newsletter done and my computer doesn't cooperate. Or that my e-mail server goes down right when I need to send someone a pressing message. Or that America Online is behaving obnoxiously for me right now. These frustrations aren't related to any of my "special needs"; they're related to having a computer. Hence, my reason for the choice of clip art!

What about technology for communicating? Yes, I finally found a communication device I like. When it's working! Discovering this device was thanks to Tracy. I wouldn't suggest doing this to your clients unless you really know them but here's how Tracy succeeded in getting me to try a device and then wanting one. One day she brought a laptop computer hooked up to a multi-voice by my place. She gave me 10 minutes of instructions, then left it with me

for the weekend. She did give me her phone number and told me to call if I had questions.

Well, that is history. I now communicate effectively with my laptop and multi-voice. You see, Tracy understood my nature. I had enough understanding of computers that I was certainly comfortable with the lap-top computer. Although I type with one finger, I'm told that I'm considerably fast so direct access made sense. I do have EZ Keys on the laptop but word prediction is more a hindrance than a help for me so I rarely use it. Once I got used to my communication device, I started using it in face-to-face communication. Yes, I

still use my word board and I strongly feel everyone needs a low-tech device. My word board doesn't break down; it just falls apart, but duct tape fixes that! I used to speak in public by having someone read whatever I typed but now I use my voice output device. Yes, voice output devices break down and usually at the least opportune times (like two days before I left for ISAAC in '96). It was a joke between Tracy and me that she would always hear from me the Friday before a long weekend informing her my device had died.

So, for me technology has made a huge difference. The

biggest part of this success has been the support I have gotten. As I've said, this support has come from both clinicians and friends. For a number of AAC users technology will probably enhance their lives, like it has mine. It will cause great frustration and even become a nightmare at times, but for me it has been worth it. I wouldn't go back to the days with my electric typewriter and I'll only trade in my computer for a better one. I'm hooked on computers, the Internet, e-mail, and all they offer me (including a lot of grief!). My world has indeed opened up because of my computers. §

POSTSCRIPT

SHIRLEY McNAUGHTON

Rob Haaf has invited reactions to his feature article and to this issue of *Communicating Together*. I hope we hear from our readers. In future issues, we would like to include examples that prove us wrong in our concerns regarding the "unintended consequences" of technology! We welcome anecdotal information about technology being kept in its place, as *one* valued component of AAC systems.

The focus of this issue has been upon technology for persons with a congenital speech impairment. We need also to address technology for those with an acquired speech impairment. We urge readers with stories to tell to write *Communicating Together*!

In the past month, I have enjoyed reading two autobiographies of AAC users. As I read, I was watching for information relating to technology, literacy and graphics — my special areas of interest. In both books, I found it difficult to find any references to learning to read or to the acquisition of technology. And both authors were born during an era when AAC graphics were not considered. Of much more importance to them were the people and spirituality in their lives.

We've come a long way in developing technology, and we've progressed in our knowledge of graphics and literacy for AAC users. I could not help but wonder what the autobiographies of AAC

users growing up in the seventies, eighties and nineties will have to say about these topics. I hope the people and spirituality in their lives will still be dominant and that we will become better at helping technology serve as a valued tool for them.

By the way, highly recommended reading:

**** *More Than A Watchmaker*, by Rick Hohn, 1125 Cottontail Rd., Vista, CA 92083; email <Rickstalk@Juno.com>.**

**** *My Life Has Been A Gift From God* by Lynda Jacko. available from Sharing to Learn, Suite 215, 3-304 Stone Rd. West, Guelph, Ont. Canada N1G 4W4 §**

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Communicating Together was established in 1982 and has been published quarterly since 1991 by *Sharing to Learn*. Beginning in 1997, it is available both in hard copy and as **ComTog-Online**. The magazine's mandate is to provide a means of sharing the life experiences and communication accomplishments and challenges of augmentative communicators. Its readership includes augmentative communicators, friends, assistants and supporters and all members of the community who wish to know more about those who use augmentative and alternative communication (AAC).

Co-editors:

Peter Lindsay & Shirley McNaughton

Associate Editors:

Suzanne Clancy, Robert Haaf, Paul Marshall, Nola Millin, Tracy Shepherd, Alda Steprans, Geb Verburg.

Editorial aid: Barbara Reid

Administrative Assistance: Bob McNaughton

Subscriptions: Ruth Kennedy

Desk Top Publishing: Robert Haaf

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Direct correspondence regarding

subscriptions, articles, advertising, subscription support, address changes and bulk mailing to:

Communicating Together

Suite 215, 3-304 Stone Rd. West
Guelph, Ontario, Canada N1G 4W4

Phone enquiries: 519-766-1757

Fax: 519-763-6682

Email: plindsay@oise.utoronto.ca
smcn@freespace.net

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